SANDY BEACH ROAD (TARRANT COUNTY) PELICAN BAY AND AZLE, TEXAS

EPA REGION 6
CONGRESSIONAL DISTRICT 12

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EPA ID# TXN000605649
Site ID: 0605649

Last Updated: October 2012

Background

The Sandy Beach Road Ground Water Plume site consists of a TCE contaminated ground water plume approximately one-half mile wide by one mile long. The plume is present beneath residential areas within parts of Pelican Bay, Azle, and unincorporated areas of Tarrant County. The City of Pelican Bay supplies potable water to approximately 1,500 residents from ground water production wells. The water supply for Azle is from surface water and is unaffected by the contamination. The plume has affected three public water supply wells in Pelican Bay and as many as 12 residential drinking water wells in Azle, Tarrant County and Pelican Bay. Two of the municipal supply wells and nine of the residential wells had TCE concentrations above the accepted health-based level for TCE. The public water supply wells were shut-down and filtration units have been placed on the affected private water supply wells, or a public water supply line was extended to the home or business.

EPA has located a source area for the ground water contamination in the former dump site located on Mountain View Drive, north of Sandy Beach Road. Sample results from a soil gas survey completed in October 2007 provided data indicating past disposal of TCE along the eastern side of the former dump site. The attached figure illustrates the general location of the disposal activity. EPA completed a geophysical assessment in December to assess the approximate depth of the dump and presence of drums or other metal debris in the trichloroethylene “hot spot”. The geophysical report was finalized in February 2008, but the preliminary results did not identify the presence of drums or debris that warrants excavation at this time.

EPA has completed residential water line connections to the City of Azle water supply system for those residences with contaminated private water supply wells within the City of Azle or in adjacent area of Tarrant County. Three additional residential water line connections to the City of Pelican Bay are pending amendments to the City water supply infrastructure, and still retain the filtration systems maintained by the TCEQ.

A private water supply well located southeast of the source area was recently discovered and tested by EPA. The well has a long screen interval and is a vertical conduit for migration to travel down to the top of the Twin Mountains aquifer. EPA has completed installation of additional wells to evaluate the impact of the private well on the lower aquifer and completed sampling of the new wells during the week of June 7th. The groundwater analytical data determined that the private water supply well did not penetrate the productive section of the Twin Mountains aquifer and a lower TCE plume is not present beneath the site.

EPA collected samples from the two inactive City of Pelican Bay supply wells in late September 2008 to determine contaminant concentrations in the Paluxy Aquifer. The samples were analyzed in the EPA Houston Lab and results indicate that the contamination from the source area is migrating laterally within the Paluxy aquifer. In addition, testing of the two closed Pelican Bay supply wells by the USGS has provided data indicating transport of the TCE from the Paluxy aquifer to the Glen Rose within long-

screened supply wells, typical of the private supply wells in the area. The upper Glen Rose does not appear to be the primary migration pathway based on the flow meter testing. EPA completed installation and sampling of six multi-port monitoring wells in June 2008. The monitoring wells were completed to sample separate intervals in the Paluxy aquifer and the upper part of the Glen Rose Formation. The monitoring wells were installed to identify the leading edge of the TCE plume originating from the former dump site on Mountain View Drive (north of Sandy Beach Road). The monitoring wells are constructed with continuous multi-channel tubing that allows sampling from 7 discrete depths to identify the plume geometry. The sampling results from all wells were non-detect for TCE, indicating that the contaminant plume has not advanced to these well locations. The boundary of the TCE plume map at the end of this summary has been updated to reflect this new information.

Current Status

The Remedial Design began in September 2012. The Record of Decision was signed in September 2011 after a public comment period for the proposed remedy was closed on September 10, 2011. The selected remedy includes a ground water pump and treat system to contain the TCE plume and restore the Paluxy and Twin Mountain aquifers; a soil vapor extraction system to remove TCE vapors in the source area above the water table; and replacement water supply wells for the residents with the remaining filtration systems installed on contaminated water wells.

Benefits

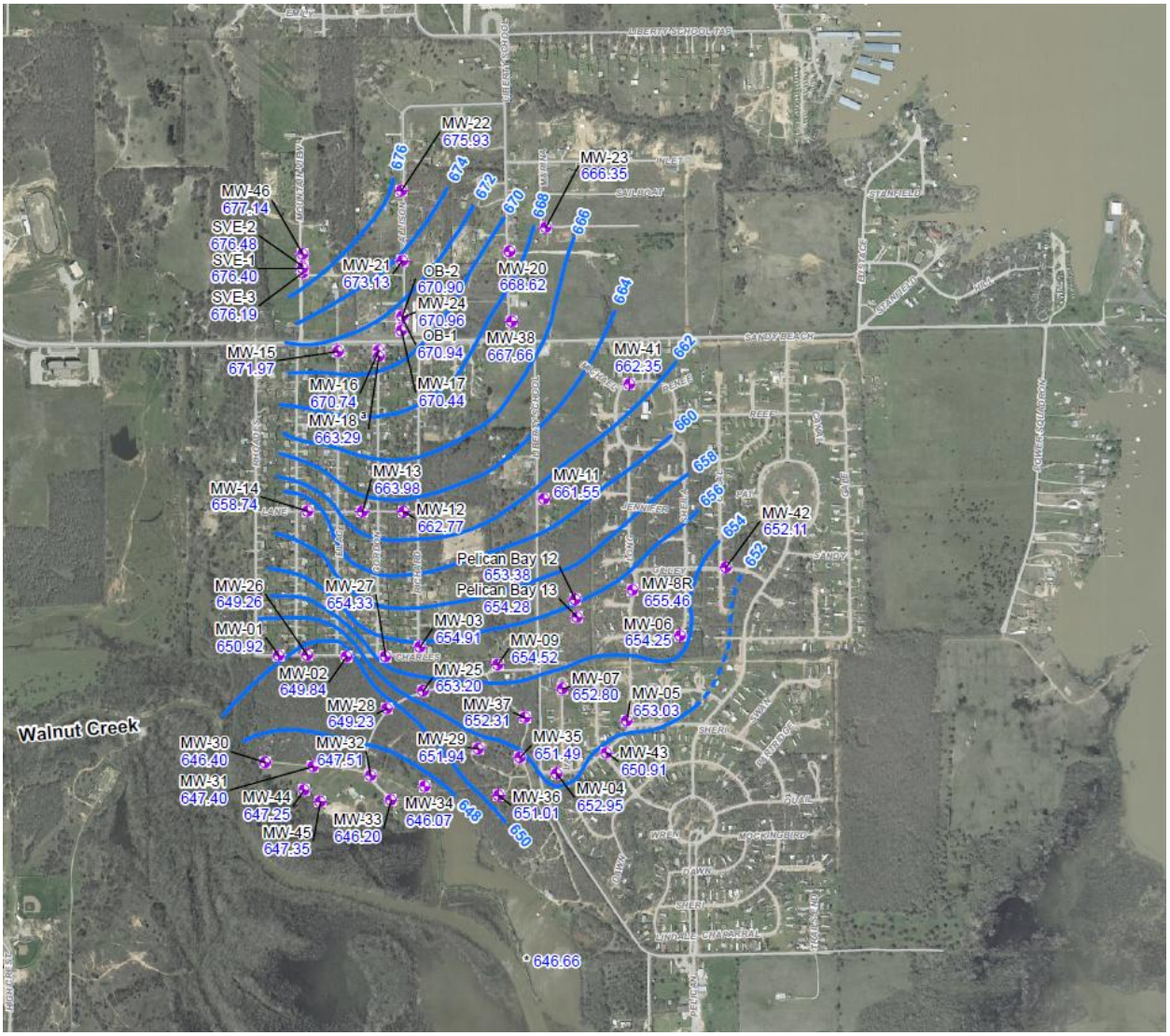
The predominant threat to human populations is the ingestion of TCE contaminated drinking water and the potential for exposure by inhalation of TCE vapors. Exposure to the contamination has been temporarily mitigated due to the installation of filtration systems on the contaminated residential wells by the TCEQ. EPA provided bottled drinking water to the affected residents until the filtration units were installed and proved to be fully working. The City of Pelican Bay water supply system continues to operate the wells completed in a deeper aquifer unaffected by the contamination. The water supply for Azle is unaffected by the contamination.

National Priorities Listing (NPL) History

NPL Inclusion Proposal Date:	April 27, 2005
NPL Inclusion Final Date:	September 14, 2005

Site Map

The following site map illustrates the ground water flow direction from northwest to south-southeast.


MW-22
675.93
MW-23
666.35
MW-46
677.14
SVE-2
676.48
SVE-1
676.40
SVE-3
676.19
MW-21
673.13
OB-2
670.90
MW-20
668.62
MW-24
670.96
OB-1
670.94
MW-38
667.66
MW-15
671.97
MW-16
670.74
MW-17
670.44
MW-18
663.29
MW-41
662.35
MW-13
663.98
MW-14
658.74
MW-12
662.77
MW-11
661.55
MW-42
652.11
Pelican Bay 12
653.38
Pelican Bay 13
654.28
MW-8R
655.46
MW-26
649.26
MW-27
654.33
MW-03
654.91
MW-06
654.25
MW-01
650.92
MW-09
654.52
MW-02
649.84
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653.20
MW-07
652.80
MW-05
653.03
MW-28
649.23
MW-37
652.31
Walnut Creek
MW-30
646.40
MW-32
647.51
MW-29
651.94
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651.49
MW-43
650.91
MW-31
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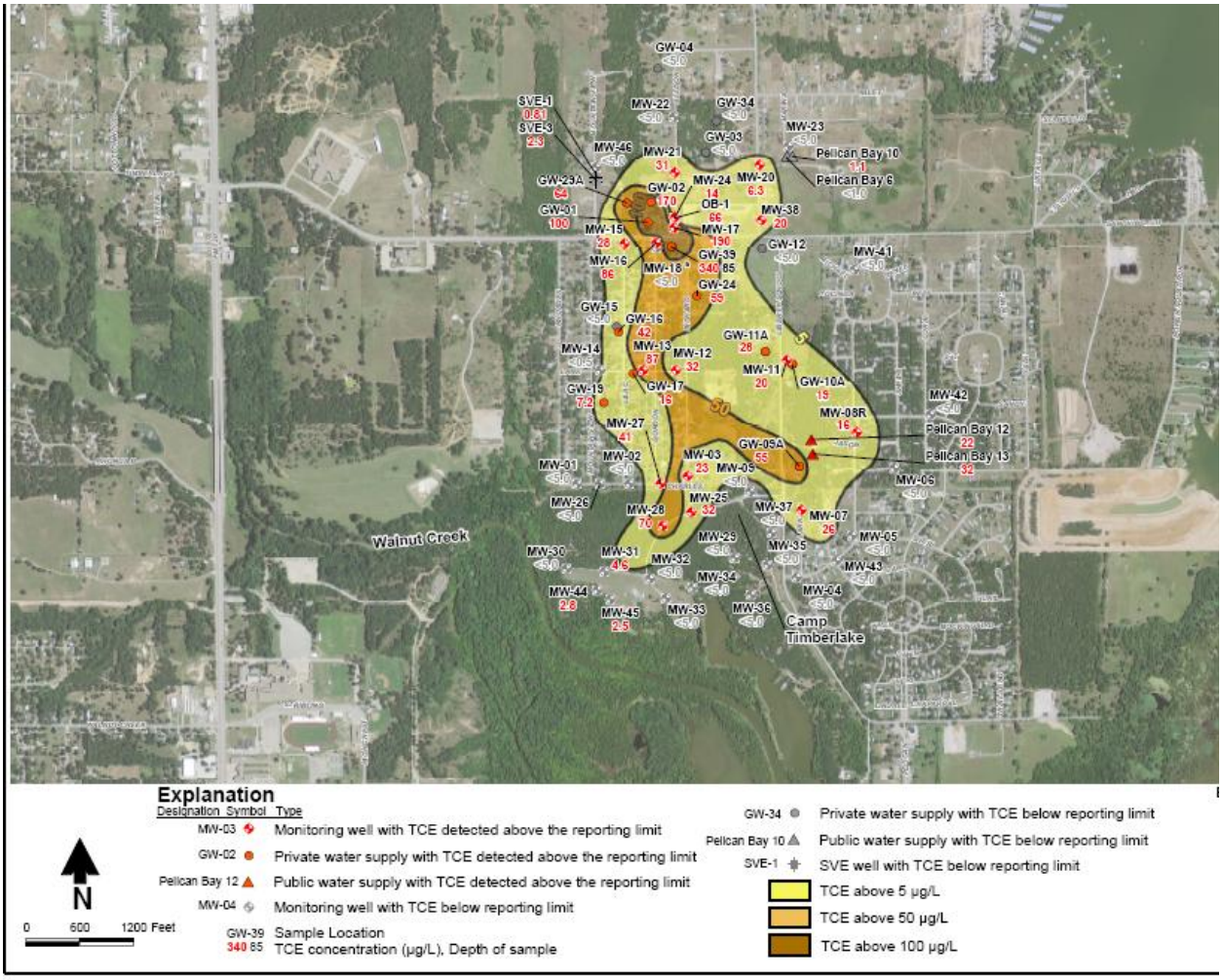
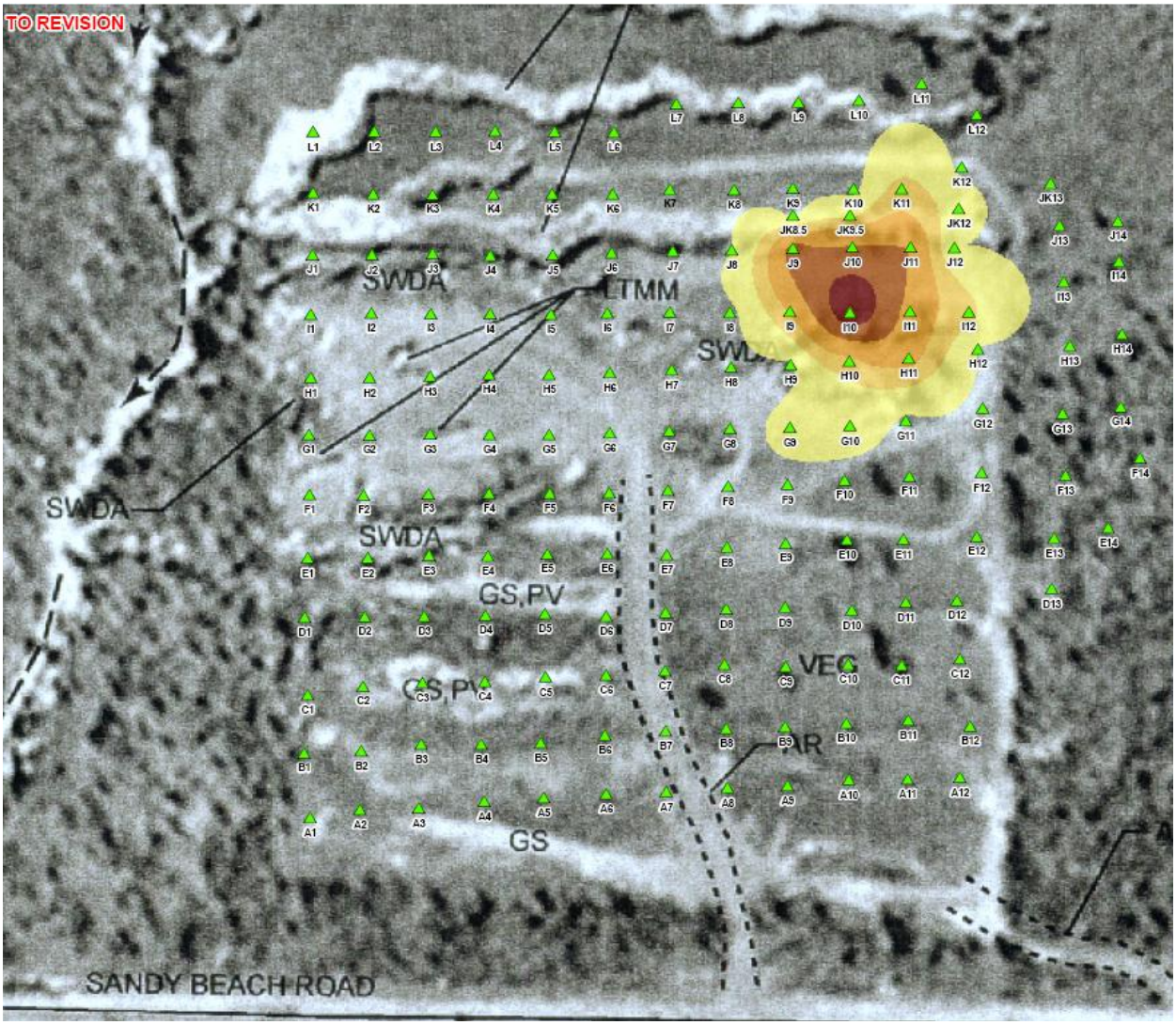
MW-44
647.25
MW-34
646.07
MW-36
651.01
MW-04
652.95
MW-45
647.35
MW-33
646.20
646.66

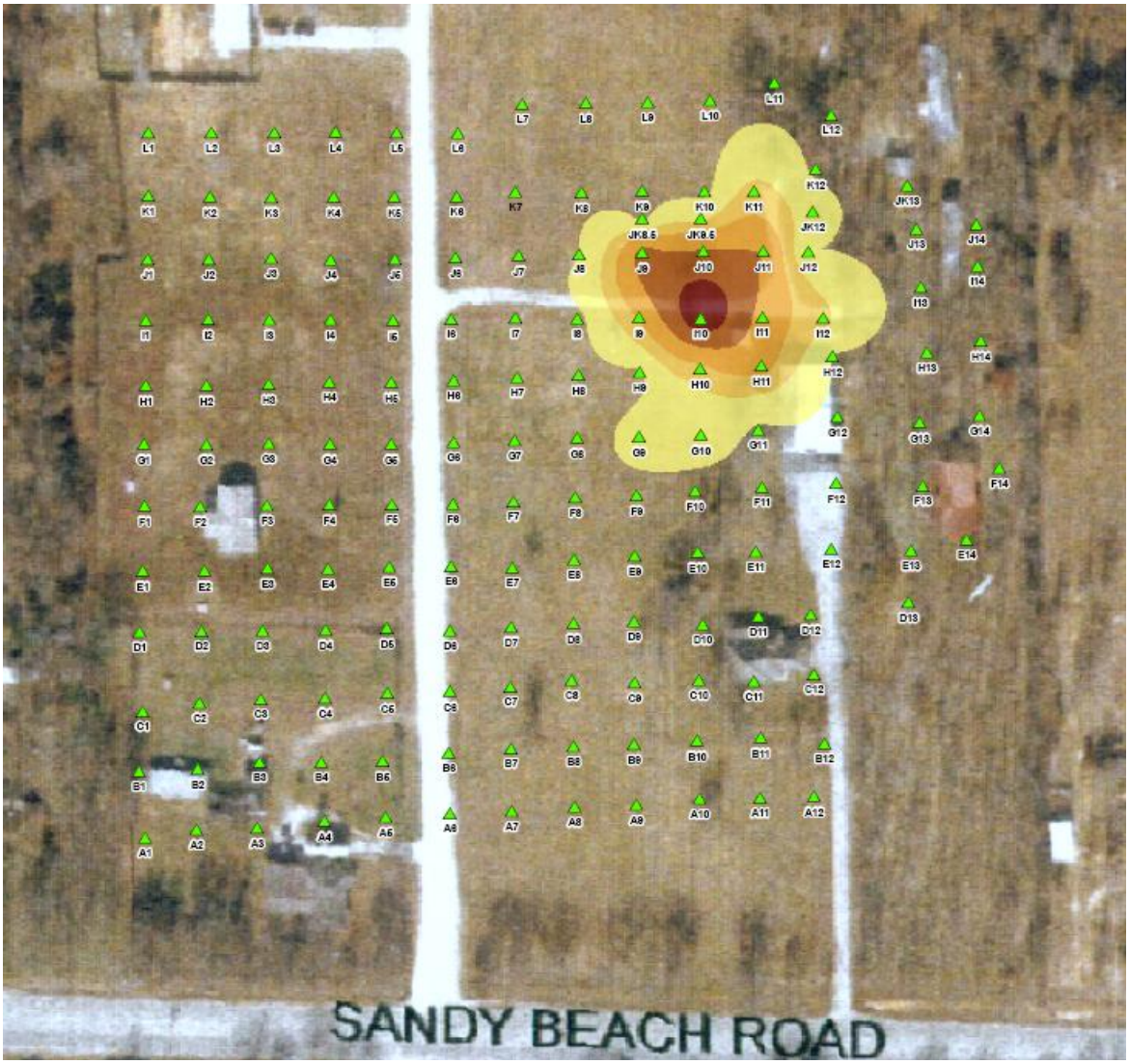
The following site map illustrates the project boundaries of the TCE plume in groundwater based on the June 2010 groundwater sampling results.



The site map illustrates the TCE vapor detected near the ground surface based on sampling in October 2007. The boundaries of the TCE vapor has been projected onto a 1963 aerial photo of the former dump site to illustrate where the disposal likely occurred relative to features of the dump site.



The second site map illustrates the same boundaries of the TCE vapor projected onto a current aerial photo of the site as it appears now.



Wastes and Volumes

The TCE plume is approximately one-half mile wide by one mile long as defined by the 5 ppb limit. The source of the contamination may be a former dump site located along Sandy Beach Road. The extent of the ground water contamination is being investigated during the remedial investigation.

Health Considerations

The ground water plume has impacted private and public water supply wells that produce water from the Paluxy aquifer. Human exposure is currently prevented through the use of filtration systems on individual private wells, and the extension of water supply connections from the City of Azle.

Record of Decision (ROD)

A Record of Decision was signed in September 2011.

Community Involvement

EPA held a public meeting in August 2011 to present the preferred alternatives for site cleanup and the results of the Remedial Investigation.

Site Contacts

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EPA Site Attorney:	George Malone	214-665-8030
EPA Community Involvement Coordinator	Jason McKinney	214-665-8132
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EPA Superfund Region 6 Toll Free Number: 1-800-533-3508

Information Repository: Azle Public Library, 609 SE Parkway, Azle, TX 76020